

REMARKS/ARGUMENTS

Favorable consideration of this Application in light of the following discussion is respectfully requested.

Claims 1, 2 and 5-20 are pending in this application. Claims 1, 2, 5-8, 10 and 20 are amended and Claims 3 and 4 are cancelled, all by the present response.

The changes made are deemed to be self-evident from the original disclosure, for example in the claims as originally filed and thus are not deemed to raise any issues of new matter.

In the outstanding Office Action, Claims 1-6 and 17-20 are rejected under 35 U.S.C. §102(e) as anticipated by Matsunaga et al. (U.S. Pat. No. 6,434,164, herein “Matsunaga”); and Claims 7-16 are objected to as dependent upon a rejected base claim but would be allowable if rewritten.

Initially, Applicants gratefully acknowledge the early indication of the allowable subject matter in Claims 7-16. However, since Applicants consider that Claims 1, 2, 19 and 20 as amended patentably define over the cited art, Claims 7-16 have presently been maintained in dependent form.

Additionally, Claims 3 and 4 are cancelled and the limitations found therein have been incorporated into independent Claims 1, 2, 19 and 20.

Turning now to the rejection under 35 U.S.C. § 102(e), Applicants respectfully traverse the rejection of Claims 1-6 and 17-20 over Matsunaga.

Claim 1 recites, in part,

calculating a bandwidth usage rate from a bandwidth allocated in a bandwidth updating period and a bandwidth actually used in the bandwidth updating period; and

determining a bandwidth to be allocated in a subsequent bandwidth updating period based on the bandwidth usage rate,

wherein the allocation of bandwidth involves ensuring that a minimum guaranteed bandwidth guaranteeing a minimum level of communication is allocated to the subscriber

apparatus, and determining a surplus bandwidth which is a result of subtraction of the minimum guaranteed bandwidth from an allocated bandwidth.

Independent Claims 2, 19 and 20 recite similar features.

Matsunaga describes a multiple access communication system in which upstream bandwidth is guaranteed. Further, the subscriber station can request excess upstream bandwidth and the center station will allocate upstream bandwidth if there is some available.¹

In the outstanding Office Action Matsunaga Col. 2, lines 7-22 is cited as disclosing the features recited in Claims 3 and 4. This section describes two methods of guaranteeing service quality of upstream data. The first method states “if a quantity of upstream data...temporarily exceeds an upstream bandwidth periodically allocated by the center state, the subscriber station may send reservation information...to request excess bandwidth and the center station...allocates the excess upstream bandwidth if there is still some available.” The second method contains the same features the only difference being that the subscriber station requests excess bandwidth in response to periodic reservation-permit information from the center station.

However, the above noted section of Matsunaga does not describe or suggest the allocation of bandwidth ensuring that a minimum guaranteed bandwidth guaranteeing a minimum level of communication is allocated to the subscriber apparatus and *the surplus bandwidth is a result of subtraction of the minimum guaranteed bandwidth from an allocated bandwidth.*

In other words, Matsunaga describes guaranteeing upstream bandwidth and requesting excess bandwidth if needed from the remaining available bandwidth but does not describe determining the surplus bandwidth by subtracting the minimum guaranteed bandwidth from an allocated bandwidth.

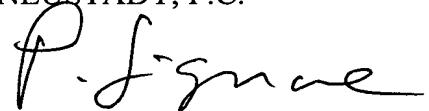
¹ Matsunaga Col 2, lines 7-22.

Accordingly, the features of cancelled Claims 3 and 4 have been incorporated into the independent claims, thus Matsunaga does not describe or suggest the above noted features of Claim 1. Therefore, it is respectfully submitted that independent Claim 1 and similarly Claims 2, 19 and 20 and depending claims 5-18 depending therefrom, patentably distinguish over the teachings of Matsunaga.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance.

Respectfully submitted,

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